



A  Sempra Energy utility

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BY EMAIL AND U.S. MAIL

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President Michael Picker
Commissioner Liane Randolph
Commissioner Martha Guzman Aceves
Commissioner Clifford Rechtschaffen
Commissioner Genevieve Shiroma
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California, 94102

Re: Winter 2018-19 Lessons Learned

Dear President Picker, and Commissioners:

Southern California has experienced noteworthy winter cold conditions during the 2018-2019 winter season. Although the early winter conditions in Southern California were manageable, this February is on pace to be the coldest in decades and we have seen hourly customer demand peak at levels in excess of historical highs. As a prudent operator, instead of hoping for milder weather in the future,¹ Southern California Gas Company (SoCalGas) offers the following comments to highlight the impacts and lessons we have learned in safely and reliably managing our system this winter.

This winter, cold weather has required SoCalGas to heavily withdraw from our storage facilities – including Aliso Canyon – so that our customers continue to have reliable access to heat, hot water, and power. Entering the winter season, SoCalGas prepared a 2018-19 Winter Technical Assessment that provided a forecast of supply and demand and included minimum month-end storage targets to support core customer (residential and small businesses) reliability. SoCalGas has actively managed our storage inventory levels, including sustained withdrawals from Aliso Canyon, to meet our month-end targets. Despite these efforts, in both January and February, inventory levels at our Honor Rancho and Playa del Rey storage fields have neared their respective minimums for core reliability.

The cold weather and our heavy reliance on our storage assets has brought system reliability and market issues into greater focus. Our system is designed around the use of underground natural gas storage to provide reliable and affordable service to our customers, to enable us to respond to peak hourly and daily demand, to serve as on-system supply sources to maintain service during prolonged

¹ See Summer 2018 Supplemental Report on Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability for Reliability.

high demand conditions, and to maintain and operate a system with contingencies to guard against outages and extreme weather events. Past Commission decisions have encouraged reliance on storage as “an important physical hedge” because there is “value to maintaining physical reserves that cannot be matched through paper transactions, or flowing supplies,” and as a means to provide “adequate, reasonably priced, stable, and reliable gas supplies.”² To promote your awareness on the role storage has played this winter, we would like to provide the following information and takeaways.

First, the joint agency³ Aliso Canyon Risk Assessment Technical Assessment Winter 2018-19 Supplement noted that “[t]he greatest risk [to the system] is from multiple high demand days that draw down storage inventories to a point where there is insufficient withdrawal capacity to meet gas demand later in the winter.” This risk was underscored in the latter half of this winter as consistent cold weather resulted in high demand and necessitated heavy use of underground natural gas storage to the point where the non-Aliso Canyon fields experienced significant reductions in their withdrawal capabilities. When this occurred, Aliso Canyon was instrumental in providing supply to our customers, enabling minimal injections into the other fields, and avoiding loss of service to core customers by maintaining specified storage inventory targets.⁴ Since November of 2018, SoCalGas has withdrawn over 40 billion cubic feet (Bcf) of natural gas from storage, with over 13 Bcf of that withdrawn from Aliso Canyon.

Additionally, customer usage patterns were more extreme this year than recent, milder winters, which has further highlighted the importance of local natural gas storage in maintaining system reliability during demand peaks. This winter, hourly customer demand increased rapidly, sometimes doubling in only six hours, and peaking at levels that exceeded a 5 billion cubic feet per day equivalent on multiple occasions. In contrast, natural gas travels slowly through the system, at approximately 20-30 miles per hour, and can take many hours to get from our receipt points to our demand centers. It can take approximately ten hours for natural gas supplies to travel from the interconnection at Blythe to the Los Angeles basin; while gas withdrawn from Aliso Canyon can respond to Los Angeles basin demand in one to two hours. As a result, Aliso Canyon has been essential in meeting these extreme hourly peak demands along with daily demands, especially as the withdrawal capabilities at the non-Aliso Canyon fields decreased because inventory levels were being depleted.

Second, the need for Aliso Canyon this winter has highlighted the market issues associated with the November 2, 2017 Aliso Canyon Withdrawal Protocol (Withdrawal Protocol). The Withdrawal Protocol renders Aliso Canyon “an asset of last resort” and effectively withholds Aliso Canyon’s withdrawal capacity from the market. Because of the Withdrawal Protocol, Aliso Canyon’s withdrawal capacity *cannot* be relied upon to balance supply and demand for consumers, to alleviate market stress in periods of high demand, or to allow customers to withdraw natural gas to mitigate high natural gas prices. These State-imposed restrictions have the seemingly unintended consequence of creating market distortions by limiting Aliso Canyon’s ability to supply the market

² Decision 06-09-039 and Decision 93-02-013.

³ Prepared by the California Energy Commission, California Public Utilities Commission, California Independent System Operator, and Los Angeles Department of Water and Power.

⁴ On November 1, 2018, all fields were at 80.470 Bcf and Aliso Canyon was at 33.613 Bcf. On February 25, 2019, all fields were at 40 Bcf and Aliso Canyon was at 20.4 Bcf.

and creating market dynamics that result in higher costs for all customers by increasing demand for limited natural gas supply. Notably, SoCal CityGate prices recently reached \$26/MMBtu compared with the Border price of \$17/MMBtu on the same day.⁵

SoCalGas' Gas Acquisition department (Gas Acquisition) is a market participant, independent from SoCalGas System Operations, that procures natural gas on behalf of bundled core customers. More recently, the Commission has also tasked Gas Acquisition with procuring additional natural gas for injection into storage to support system reliability.⁶ Normally, Gas Acquisition would buy and inject natural gas into storage when natural gas is more affordable and use that natural gas during high winter demand periods to avoid purchasing natural gas when the market is stressed. Despite injecting an additional 10 Bcf of natural gas into Aliso Canyon last summer for enhanced/increased winter reliability, Gas Acquisition has been unable to fully utilize its firm storage rights because of the Withdrawal Protocol's restrictions on Gas Acquisition's access to the gas supplies stored in Aliso Canyon and related limitations on filling Aliso Canyon's inventory.⁷ Gas Acquisition has proactively taken steps to mitigate the impact of these restrictions by buying and maintaining firm rights on the inter and intrastate pipelines. However, because Gas Acquisition is unable to schedule and access natural gas supply in Aliso Canyon, it may need to purchase additional supplies, which can increase market-wide demand for natural gas and the cost of natural gas to all customers.

Just last month, as part of a Commission and California Energy Commission workshop on Southern California Natural Gas Prices, SoCalGas proposed that the Withdrawal Protocol be modified to allow Aliso Canyon to be utilized to increase system flexibility, reliability, and add to available supplies.⁸ As part of that same workshop, numerous other entities suggested additional use of Aliso Canyon:

- California Independent System Operator: "In the near-term, the CPUC should revise the Aliso withdrawal protocol to enable SoCalGas to mitigate higher stage OFO risk."
- Pacific Gas & Electric Company: "PG&E supports the full utilization of Aliso Canyon if it has met all the safety requirements mandated by the CPUC and the Division of Oil, Gas, and Geothermal Resources (DOGGR)."
- Indicated Shippers and The Energy Producers and Users Coalition: "In the near-term, the Commission and SoCalGas must continue to work together to optimize the use of Aliso Canyon to mitigate supply reliability risks, as well as price volatility."
- NRG Power Marketing: "NRG agrees that fixing the fundamental, physical cause of the problem – the gas supply restrictions resulting from the reduced operability at Aliso Canyon and the reduced transfer capability in the SoCalGas system – is the solution that is likely to have the most significant and longest-lasting benefits."

⁵ NGI Daily Gas Price Index for February 21, 2019.

⁶ Available at

http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Safety/Untitled_03132018_141521.pdf.

⁷ See Summer 2018 Supplemental PUC Section 715 Report available at

http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/715Report_Summer2018_Final.pdf.

⁸ Available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=226384&DocumentContentId=57159>.

Natural gas storage is an essential part of our system and we continue to support modifications to the Withdrawal Protocol to enhance storage's ability to promote reliability and affordability. We continue to work to safely maintain and operate our storage facilities and pipelines to support our system and customers. SoCalGas is also working diligently to safely complete pipeline work to increase flowing supplies. However, this work will require time to safely complete and additional flowing supplies will not replace underground storage as strategically located, on-system assets that support the provision of reasonably priced, stable, and reliable gas supplies. We will continue to keep the Commission apprised of the progress on the pipeline outages and reductions at the weekly reliability call with Energy Division. However, such conditions can occur again and it would not be prudent to assume all assets on the system operate fully at all times; underground storage is a critical asset during such system constraints.

We hope you find this information helpful as you consider how best to support system reliability and affordability going forward. We stand ready to support you in these efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmie Cho". The signature is fluid and cursive, with the first name "Jimmie" being larger and more prominent than the last name "Cho".

Jimmie Cho
Chief Operating Officer

cc: Edward Randolph, Deputy Executive Director for Climate and Energy Policy, CPUC
Elizaveta Malashenko, Deputy Executive Director, Safety and Enforcement Policy, CPUC
Drew Bohan, Executive Director, California Energy Commission
Andrew Dodge, Director, Office of Electric Reliability, Federal Energy Regulatory Commission
Joseph McClelland, Director, Office of Energy Infrastructure Security, Federal Energy
Regulatory Commission
I.17-02-002 Service List